



-1-

SUBSTITUTE SEQUENCE LISTING

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a. <120> Methods and Compositions for Synthesis of Nucleic Acid
Molecules Using Multiple Recognition Sites

<130> 0942.5340002

<140> 10/005,876

<141> 2001-12-07

<150> 60/254,510

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<150> 60/291,972

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<151> 2001-11-27

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12

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12

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<223> adapter oligonucleotide, TOPO D1

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<223> adapter oligonucleotide, TOPO D2

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12

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<223> adapter oligonucleotide, TOPO D5

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11

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<223> adapter oligonucleotide, TOPO D4

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<223> oligonucleotide overhang sequence of TOPO D1 and TOPO D4

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<223> adapter oligonucleotide, TOPO 16

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<223> DNA sequence of the N-terminus of a theoretical protein

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atggatctga taaa

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<223> PCR primer

<400> 45
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<210> 46

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<223> DNA sequence of the C-terminus of a theoretical protein

<400> 46
aagtcggagc actcgacgac ggtgtag

27

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<223> reverse PCR primer sequence

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aaacaccgtc gtcgagt

17

<210> 48

<211> 33

<212> DNA

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<220>

<223> DNA sequence of the C-terminus of a theoretical protein

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gcgggtaagt cggagcactc gacgactgca tag

33

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<223> sequence of reverse primer without stop codon

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24

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<223> sequence of reverse primer with stop codon

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37

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36

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41

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<211> 41

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<400> 58
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41

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<400> 61
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<400> 62

atgtaatacg actcactata gg

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<400> 63

cggaacaagg g

11

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<223> nucleotide primer

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taggccaagg g

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<213> artificial sequence

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<223> amplified end of PCR product

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cccttcggaa caaggg

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<212> DNA

<213> artificial sequence

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<223> amplified end of PCR product

<400> 66
cccttgcca taaggg

16

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<212> DNA

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<223> map of multiple cloning sites in plasmids
pcDNAGW-DT9(sc) and pENTR-DT(sc)

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75

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<223> Amino acid sequence for pcDNAGW-DT9(sc) and pENTR-DT(sc)

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<210> 69

<211> 11

<212> PRT

<213> artificial sequence

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<223> Amino acid sequence for pcDNAGW-DT9(sc) and pENTR-DT(sc)

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<223> Nucleotide sequence of plasmid pENTR/D-TOPO

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<222> (691)..(699)

<223> "n" can be any nucleotide: a, t, c, g

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gcgcccataa cgcaaaccgc ctctccccgc gcgttggccg attcattaat gcagctggca	180
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<223> Nucleotide sequence of plasmid pENTR/SD/D-TOPO

<220>

<221> unsure

<222> (710)..(715)

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<210> 72

<211> 5543

<212> DNA

<213> artificial sequence

<220>

<223> Nucleotide sequence of plasmid pcDNA3.2/V5/GWD-TOPO

<220>

<221> unsure

<222> (958)..(966)

<223> "n" can be any nucleotide: a, t, c, g

<400> 72
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attgacgtca atgggtggac tatttacggg aaactgcca cttggcagta catcaagtgt 480
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tcgctattac catggtgatg cggttttggc agtacatcaa tgggcgtgga tagcggtttg 660
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<210> 73

<211> 5173

<212> DNA

<213> artificial sequence

<220>

<223> Nucleotide sequence of plasmid pcDNA6.2/V5/GWD-TOPO

<220>

<221> unsure

<222> (958)..(966)

<223> "n" can be any nucleotide: a, t, c, g

<400> 73

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 ttaggggttag gcgttttgcg ctgcttcgag atgtacgggc cagatatatc cgttgacatt 240
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 tggagttccg cgttacataa cttacggtaa atggcccgcg tggtgaccg cccaacgacc 360
 cccgcccatt gacgtcaata atgacgtatg ttcccatagt aacgccaata gggactttcc 420
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tcgctattac catggtgatg cggttttggc agtacatcaa tgggcgtgga tagcggtttg	660
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gccacctgac gtc 5173

<210> 74

<211> 69

<212> DNA

<213> artificial sequence

<220>

<223> Partial sequence of pENTR/SD-dTOPO

<220>

<221> unsure

<222> (64)..(69)

<223> "n" can be any nucleotide: a, t, c, g

<400> 74

ttgtacaaaa aagcaggctc cgcggccgcc ttgtttaact ttaagaagga gcccttc

accatgnnnn nn

<210> 75

<211> 52

<212> DNA

<213> artificial sequence

<220>

<223> Nucleotide sequence of TOPO-D71

<400> 75
ggccgccttg tttaacttta agaaggagcc cttcaccgac tatgtacagtt g 52

<210> 76

<211> 31

<212> DNA

<213> artificial sequence

<220>

<223> Nucleotide sequence of TOPO-D73

<400> 76
ggccgcccc ttcaccgact atgtacagtt g 31

<210> 77

<211> 28

<212> DNA

<213> artificial sequence

<220>

<223> Nucleotide sequence of TOPO-D75

<400> 77
cgcgccacc cttgacatag tacagttg 28

<210> 78

<211> 14

<212> PRT

<213> artificial sequence

<220>

<223> Partial amino acid sequence of pENTR-dTOPO and pcDNAGW-dTOPO

<400> 78

Leu Tyr Lys Lys Ala Gly Ser Ala Ala Ala Pro Phe Thr Met
1 5 10

<210> 79

<211> 13

<212> PRT

<213> artificial sequence

<220>

<223> Partial amino acid sequence of pENTR/SD-dTOPO, pENTR-dTOPO, and pcDNAGW-dTOPO

<400> 79

Lys Gly Gly Arg Ala Asp Pro Ala Phe Leu Tyr Lys Val
1 5 10

<210> 80

<211> 15

<212> DNA

<213> artificial sequence

<220>

<223> Product of binding a topoisomerase to part of a nucleic acid molecule

<220>

<221> unsure

<222> (13)..(15)

<223> "n" can be any nucleotide: a, t, c, g

<400> 80

cccttcacca tgnnn

15

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conc w